



Bikes to reduce emissions

Using climate finance to facilitate and promote cycling

- The transport sector is the fastest growing source of greenhouse gas emissions worldwide.
- Particularly in emerging countries, increased use of cars is contributing to low air quality, traffic congestion and an increase in greenhouse gas emissions.
- With the emerging and developing countries urbanizing at a rapid rate, transport policy choices made today will have long lasting effects on the global greenhouse gas emissions trajectory.
- Promoting bicycles for urban and semi-urban transport can contribute to sustainable development and improve the quality of life in cities.
- Climate finance can support municipalities in emerging economies to promote and facilitate cycling and develop bike-friendly infrastructure.
- Prioritizing bicycles ensures personal mobility of all income groups. Investing in car infrastructure only marginalizes the poor as they either cannot take part or have to spend a large share of their dispensable income on transport, particularly in LDCs. In addition, bicycles do not rely on fossil fuels which many developing countries subsidise and/or import.

Cycling to Mitigate Climate Change

In 2010 the transport sector was responsible for 22% of global CO₂ emissions worldwide.¹ Global transport related CO₂ emissions are expected to increase by 57% in the 2005 – 2030 timeframe, representing the fastest growing source of greenhouse gas emissions worldwide.² More than 80% of estimated growth in transport emissions is expected to come from road transport in emerging economies.³



The rapid motorization of transport in emerging economies comes with various negative externalities: traffic congestion, increased greenhouse gas emissions and air-pollution to a level that harms not only the public health, but also a city's (international) reputation and ability to attract investments. Evidently, in many cities, providing more space for cars has failed to solve congestion issues, as it only led to a faster increase of car-use. In order to avoid large-scale uptake of cars as economies grow, the negative association of cycling as being dangerous, inconvenient, and for the poor only, must be overcome.

¹ IEA "CO₂ Emissions from Fuel Combustion - 2012 Edition" (2012) Paris: International Energy Agency

² UITP "Public Transport and Co2 Emissions" http://www.uitp.org/news/pics/pdf/MB_CO23.pdf

³ IEA "Transport, Energy and CO₂: Moving Towards Sustainability" (2009) Paris: International Energy Agency



Bike tour on the ring road of Almaty, Kazakhstan.

Sustainable transport policy, with a clear role and place for cycling in addition to public transport, can directly mitigate these negative side effects. As European cities such as Amsterdam and Copenhagen have shown, **prioritization of biking infrastructure** can significantly contribute to cleaner and safer cities, with an improved quality of life. Particularly in emerging economies, cycling can act as a powerful **climate neutral poverty reduction strategy** by providing everybody access to a cheap but individual and independent means of transport while helping meet international commitments on greenhouse gas emissions.



Bike rental in Kololi, The Gambia.

The effectiveness of cycling programs varies between municipalities given the various human and geographic elements at play across cities and regions. There is a shortage of data and analysis of the mitigation potential of cycling programmes, and yet there is evidence that increasing the share of trips by bicycle can substantially reduce CO₂ emissions. For instance, the Fourth IPCC Assessment Report refers to a study of transport policies in Latin American cities which found that increasing the share of trips by bicycle from 1% to 10% can reduce the amount of greenhouse gas emissions in the city by 8.4%, providing evidence of the significant role cycling can play in addressing greenhouse gas emissions.⁴

Bogota's success story

In the last decade, Bogota has undertaken significant upgrades to its public transportation system, including the construction of 300 km of bicycle lanes. Following construction of the network the share of cycling increased from 1% to 4% of total city trips.

Bogota's success story could not have been possible without the leadership of Enrique Peñalosa, the city's former mayor who made a strong commitment to prioritize pedestrians and cyclists. Bogota's example emphasises the need for strong political leadership and community support to increase cycling in the transport mix.

There is an increased appreciation for the **need to engage the general public in mitigation action**. Targeting measures that not only reduce emissions but also improve the quality of live will help create more public support for climate action. Furthermore, targeting the general public with mitigation actions, also means involving consumers and commuters whose daily decisions indirectly also impact

⁴ Climate Change 2007: Working Group III: Mitigation of Climate Change, available online: http://www.ipcc.ch/publications_and_data/ar4/wg3/en/ch5s5-3-1-5.html



industrial emissions. This makes them crucial to successfully putting countries on a road to low-carbon development.

Cycling in Copenhagen

In Copenhagen, bikes currently account for 35% of all commuter trips. By investing USD 13 million annually in cycling infrastructure and communication campaigns, the city aims to increase ridership to 50% by 2024.

These trends combine with **increased leadership in climate-proofing at the municipal level** to create the necessary conditions for promoting cycling as a principal mode of transport. Where municipalities wish to support cycling programs but lack the funding necessary, climate finance and other sources of international funds can assist.

Climate Finance opportunities

Transport has been largely neglected by emission trading mechanisms. For example, while transport is the source of 22% of global emissions it accounts for only 0.4% of reductions under the Clean Development Mechanism (CDM).⁵ The number of CDM projects that specifically target cycling is zero. Climate finance offers an opportunity to correct the imbalance.



Bike priority lanes in Utrecht, the Netherlands.

First, cycling requires government commitment and initiative to put the required infrastructure in place. Climate finance mechanisms, like Nationally Appropriate Mitigation Actions (NAMAs), are geared towards government cooperation. That makes climate finance a suitable mechanism to support cycling programs.

Second, the CDM is burdened with a monitoring and verification procedure that leads to uncertain results for investors and sometimes prohibitive costs. While climate finance, including NAMAs requires Measuring, Reporting and Verification (MRV) of the emission reductions as well there is greater flexibility in adapting the rules to fit the individual purpose.

Cycling in London

In the aftermath of the 2012 Olympic Games, the Mayor of London claimed that the network of cycle routes developed leading up to the event is the “main cross-London physical legacy of the 2012 Olympic Games”. The city is continuing to invest in improving safety for cyclists, parking facilities and construction of cycle superhighways.

The MRV of transport projects is complex. Still, given the pace at which transport emissions are growing in many developing countries it is important that we develop satisfactory ways to measure the performance of transport mitigation activities. MRV should enable donors to learn from mitigation activities and allow them to select the most effective options. For the transport sector this might mean that we have to accept compromises on accuracy to avoid that this sector remains neglected.

Developed countries committed to gradually increase their climate finance to a level of **USD 100 billion by 2020**. Within their climate finance budgets, these countries are seeking to invest in meaningful projects that support sustainable development.

⁵ UNEP Risø pipeline, May 2013.



Bike parking facilities in Utrecht, Netherlands.

As several of the European Annex 1 countries are internationally recognized for their biking policies, including Denmark, Germany, the Netherlands, and the United Kingdom. Combining climate finance with the promotion of cycling would also open up opportunities for experience sharing and capacity building.

Conclusion

The transport sector represents a major share in global emissions but has been largely neglected by the carbon markets. Climate finance should close this gap and help the sector reduce its emissions and lower the pressure it exerts on air quality in urban areas.

It is crucial that municipalities in developing countries that express political will to facilitate and promote cycling receive adequate financial support and can benefit from experience elsewhere. Although quantifying the performance of transport projects might be challenging, MRV should not be prohibitive. On the contrary, it should be a way to make climate finance more effective and make it work for all sectors, including transport.

For more information and collaboration opportunities, contact:

Jelmer Hoogzaad (Amsterdam)
Phone: +31 20 262 1033
E-mail: j.hoogzaad@climatefocus.com

Sandra Greiner (Amsterdam)
Phone: +31 20 262 1035
E-mail: s.greiner@climatefocus.com

Climate Focus 2013
www.climatefocus.com